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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,723	04/06/2006	Johannes Reinschke	2003P08417W0US	1912
22116 7590 11/12/2008 SIEMENS CORPORATION INTELLECTUAL PROPERTY DEPARTMENT 170 WOOD AVENUE SOUTH ISELIN, NJ 08830				
EXAMINER				
JENNINGS, STEPHANIE M				
ART UNIT		PAPER NUMBER		
4135				
MAIL DATE		DELIVERY MODE		
11/12/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/574,723

**Applicant(s)**

REINSCHKE, JOHANNES

**Examiner**

STEPHANIE JENNINGS

**Art Unit**

4135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 22 October 2008.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 15-33 is/are pending in the application.  
4a) Of the above claim(s) 30-33 is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☐ Claim(s) 15-29 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 04 April 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO/5508)  
Paper No(s)/Mail Date 20060406  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Election/Restrictions***

Claims 30-33 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group II, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on October 22, 2008.

### ***Specification***

The abstract of the disclosure is objected to because the abstract appears to be a literal translation from a foreign language into English. For example, it is unclear what the Applicant considers to be claimed by the terminology "bulging model" or "regulated online." Correction is required. See MPEP § 608.01(b).

The disclosure is objected to because of the following informalities: Examiner notes that the disclosure appears to be a literal translation into English from a foreign document. A substitute specification in proper idiomatic English and in compliance with 37 CFR 1.52(a) and (b) is required. The substitute specification filed must be accompanied by a statement that it contains no new matter.

For example, it is not clear from the disclosure what Applicant considers to be defined by the terminology of a "bulge model". See below 35 USC 112 2<sup>nd</sup> paragraph rejection of the claims.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors. For example, it is not clear from the disclosure what Applicant is claiming regarding the "bulge model."

Claims 15, 17, 19, 23, and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what the Applicant is claiming regarding the "bulge model."

Claim 22 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what the applicant is claiming with the use of the word "topometrically." The Examiner will examine the claims "as best understood", assuming the use of "topographically" instead of "topometrically."

Claim 24 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention. It is unclear what is being claimed when the Applicant states that "the flatness models are translated online."

Claim 25 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is being claimed with the "approximation function" described in Claim 25.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

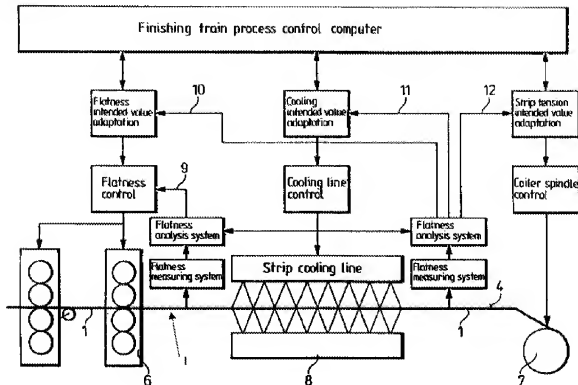
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 15-18 are rejected under 35 U.S.C. 102(b) as being anticipated by Müller, et al.  
US Patent No. 6,286,349 B1.

Müller anticipates:

**Fig. 4**



Limitations from claim 15, a method for operating a metal strip mill train, comprising:

determining a desired flatness of the strip via a material flow model (strip tension intended value adaptation, figure 4 above); measuring an actual flatness of the metal strip near a discharge point of the mill train (I, figure 4 above--added by examiner); translating the measured metal strip flatness into flatness values (flatness analysis system, figure 4 above); controlling a roll stand of the mill train via a bulge model (figure 4) that uses the desired and actual flatness values as inputs to reduce the difference between the actual flatness and the desired flatness of the metal strip (column 2, lines 51-67).

Limitations from claim 16, the method as claimed in claim 15, wherein the actual flatness of the metal strip is measured at the discharge point of the mill train (I, figure 4 above—added by examiner).

Limitations from claim 17, the method as claimed in claim 15, wherein the actual flatness is determined as a bulge pattern (column 2, lines 51-55).

Limitations from claim 18, the method as claimed in claim 17, wherein the bulge pattern is three-dimensional (column 2, lines 51-54). Müller's invention uses a camera to measure deviations in the strip surface from the ideal plane; a three-dimensional structure is inherent in these strip surface deviations.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Müller et al. US Patent No. 6,286,349 B1.

Müller teaches:

Limitations from claim 18, The method as claimed in claim 17, wherein the bulge pattern is three-dimensional (column 2, lines 51-54).

Claims 19-20, 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Müller, et al. US Patent No. 6,286,349 B1 as applied to claim 18 above, and further in view of Flormann US Patent No. 6,480,802 B1.

Müller teaches a system for flatness measurement of a strip of metal with a camera monitoring system, but does not teach such a system that allows for bulge pattern determination from a variable of the individual tracks selected from wavelength, amplitude, and phase offset, but Flormann does.

Flormann teaches:

Limitations from claim 19, the method as claimed in claim 18, wherein a relative length of individual tracks of the metal strip is evaluated to determine the bulge pattern along with a variable of the individual tracks selected from the group consisting of: wavelength, amplitude and phase offset (column 2, lines 10-38).

Wherein Müller further teaches:

Limitations from claim 20, the method as claimed in claim 19, wherein a laser measuring device is used to determine the desired flatness of the metal strip (1) (column 1, lines 27-31).



Limitations from claim 22, the method as claimed in claim 20, wherein the actual flatness of the metal strip (1) is measured topometrically (column 2, lines 54-55).

Limitations from claim 23, the method as claimed in claim 22, wherein the values for the desired flatness are translated into values for the actual flatness using the bulge model (figure 4).

Limitations from claim 24, the method as claimed in claim 23, wherein the flatness values are translated online (flatness measuring system, flatness control system, flatness control, flatness intended value adaptation, finishing train process control computer, figure 4 above) (column 2, lines 29-32).

Limitations from claim 25, the method as claimed in claim 24, wherein, the flatness values (flatness measuring system, figure 4 above) are translated online via an approximation function (finishing train process control computer, figure 4 above) (column 2, lines 29-32).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Müller's invention with Flormann's invention because Flormann's invention allows for reduced complexity of flatness measurement and use for retrofitting current devices.

Claim 26, 27, and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Müller, et al. US Patent No. 6,286,349 B1 and Flormann US Patent No. 6,480,802 B1 as applied to claim 25 above, and further in view of Gramckow et al. US Patent No. 6,697,699 B2.

Müller teaches a system for flatness measurement of a strip of metal with a camera monitoring system, but does not teach such a system that uses an applied temperature distribution, but Gramckow does.

Gramckow teaches:

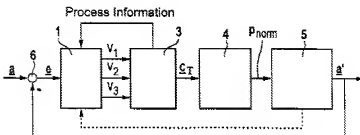


FIG 2

Limitations from claim 26, the method as claimed in claim 25, wherein the metal strip bulge pattern based on the strip flatness is determined via the bulge model by applying an assumed temperature distribution in the transverse direction of the metal strip (figure 2 above) (column 3, lines 36-44 and column 4, lines 43-60).

Wherein Müller further teaches:

Limitations from claim 27, the method as claimed in claim 26, wherein the actual flatness of the metal strip is measured by a laser measuring device (column 1, lines 27-31).

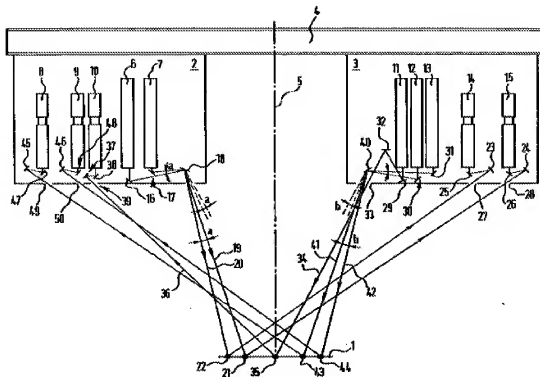
Limitations from claim 29, the method as claimed in claim 27, wherein a flatness limit value is predefined at points (10, figure 4 above) to control the mill train (column 2, lines 51-55).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Müller's and Flormann's invention with Gramckow's invention because Müller's topographic flatness measuring system in combination with Gramckow's temperature controller would minimize production errors in the metal strip.

Claims 21 and 28 rejected under 35 U.S.C. 103(a) as being unpatentable over Müller et al. US Patent No. 6,286,349 B1 and Flormann US Patent No. 6,480,802 B1 as applied to claims 20 and 27 above, and further in view of Pirlet US Patent No. 4,541,723.

Müller and Flormann do not teach a multi-track laser measuring device, but Pirlet does.

Pirlet teaches:



Limitations from claim 21, the method as claimed in claim 20, wherein the laser measuring device is a multi-track laser measuring device (figure above) (column 2, lines 22-45).

Limitations from claim 28, the method as claimed in claim 27, wherein the laser measuring device is a multi-track laser measuring device (figure above) (column 2, lines 22-45).

It would have been obvious to one of ordinary skill in the art at the time of invention to combine Pirlet's invention with Müller's and Flormann's inventions because the use of a multi-track laser measuring device allows for increased accuracy from repeated measurements and localized measurements. Additionally, the inventions have the commonality of use in measurement of planarity of metal products.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to STEPHANIE JENNINGS whose telephone number is (571)270-7392. The examiner can normally be reached on M-F, 7:30 am-5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William M. Brewster can be reached on (571)272-1854. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. J./  
Examiner, Art Unit 4135  
November 4, 2008

/William M. Brewster/  
Supervisory Patent Examiner, Art Unit 4135